LAT 39.11979 LON -120.42131

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FOREST PEST MANAGEMENT
Pacific Southwest Region

Report No. 83-21

3430 Evaluation
August 16, 1983

PEST MANAGEMENT CONSIDERATIONS FOR SALVAGE OF WIND-THROWN TIMBER AT FRENCH MEADOWS RECREATION AREA, FORESTHILL DISTRICT, TAHOE NATIONAL FOREST

John Kliejunas, Plant Pathologist

ABSTRACT

In December, 1982, a wind storm caused considerable blow-down in the French Meadows Recreation Area. In order to provide pest management considerations to the Foresthill District as they planned salvage sales there, several sites within the area were examined. There are no disease problems, with the possible exception of annosus root disease and decay in true fir, which would be expected to increase as a result of the blow-down and subsequent salvage. The anticipated prompt removal of wind-thrown timber and slash minimize any impact from insect pests.

INTRODUCTION

In response to a request from Ken Fiske, Sales Preparation and Administration, Tahoe National Forest, several sites within the French Meadows Recreation Area were examined on July 21-22, 1983 by John Kliejunas of the Forest Pest Management Staff. He was accompanied by Phil Tuma, District Planner, Foresthill Ranger District. The sites included French Meadows Campground, Black Bear Group Camp, Lewis Campground, McGuire Picnic, Beach and Boat Area, and adjacent undeveloped sites where a wind storm in December, 1982 resulted in 8 to 9 million board feet of wind-thrown timber. The objective of the evaluation was to provide pest management considerations to the District's planned salvage sales in the area, and to contribute to a prognosis for the residual stands, based on the potential for pest damage and impact resulting from the blow-down.

USDA, FOREST SERVICE, PACIFIC SOUTHWEST REGION
State and Private Forestry, Forest Pest Management

OBSERVATIONS

The sites examined are a component of the mixed conifer type, containing sugar pine, ponderosa pine, Jeffrey pine, white fir, incense-cedar, a minor amount of lodgepole pine, some Douglas-fir, and red fir on upper slopes. Elevation ranges from approximately 5200 to 5400 feet and Site Class is generally Dunning II throughout.

Species composition of wind-thrown timber measured in portions of the previously-marked Cow Camp Sale east of the developed sites is 63% white fir/red fir, 35% sugar pine, and 2% incense-cedar. Lodgepole pine was wind-thrown in other sites. Diameters of wind-thrown trees ranged from poles to overmature sawtimber but, in general, overstory sawtimber was affected most.

Salvage operations have begun. Marking is completed in the French Meadow Campground, clean-up work in the developed sites is expected to be near completion by this fall, and all operations are scheduled for completion within one year from the present.

Operations in developed sites include chipping or piling and burning of all slash up to 4 inches in diameter, bucking material 4 to 10 inches in diameter and leaving it for campers or woodcutters, and yum-yarding or salvaging materials greater than 10 inches in diameter. Root balls are to be removed whenever possible, and stumps resulting from cutting of live trees are to be treated with borax.

The marking of trees in the French Meadows Campground was thorough. In addition to wind-throw, residual standing trees damaged by falling timber, standing dead white fir, and white fir with dead tops or thin crowns were marked for removal.

The presence of annosus root disease, caused by Fomes annosus, in white fir was confirmed at French Meadows Campground (in open meadow behind site number 67), at Black Bear Group Camp (in numerous white fir stumps) where chronic dying of white fir has been occurring over a period of years, and at Lewis Campground (white fir stumps at sites 14, 15 and 21) where clumps of dead and dying white fir occur throughout the campground. In addition, annosus root disease was strongly suspected, but not confirmed on white firs at the McGuire Picnic and Boat Areas. Other diseases noted in the developed sites included 1) white pine blister rust throughout, resulting in branch flagging, but only occasional killing of sugar pine saplings and small poles, 2) light to moderate levels of western dwarf mistletoe in overstory ponderosa and Jeffrey pines throughout the area, 3) lodgepole pine dwarf mistletoe at Black Bear Group Camp, 4) rust stem cankers on lodgepole pine, and 5) incense-cedar rust and true mistletoe throughout.

Insect activity in downed timber and slash appeared minimal. Pine engravers, Ips spp., were noted in ponderosa, Jeffrey and sugar pines. Pitch streaming from fir engraver, Scolytus ventralis, attacks were noted in a few standing white fir. Numerous dead tops in overstory white fir, especially at French Meadows Campground, suggested past fir

engraver activity. These spiked-top white fir were generally in overstocked portions of the stand and/or where annosus root disease was suspected.

DISCUSSION

The main concern of Forest and District personnel was whether salvage operations were being conducted in a manner best suited to minimize present and future pest impact resulting from the blow-down. The answer is yes.

There are no disease problems, with the possible exception of annosus root disease and decay in true fir, which would be expected to increase as a result of the blow-down and subsequent salvage. Planned immediate removal and utilization of downed materials will eliminate losses from stain, sap-rotting and heart-rotting fungi. If marking for removal of wounded/damaged white fir continues as done at French Meadows Campground, future losses resulting from infection of wounds on residual white fir by Fomes annosus and decay fungi will be minimal. Trees damaged as a result of salvage operations should be considered for removal as part of the overall salvage program. The current program presents, as recognized by the District, an opportunity to remove dead standing white fir which may present a hazard to humans and/or structures in the developed sites. Additional thinning of overstocked aggregations of white fir would reduce future losses from annosus root disease and fir engraver beetles. Other diseases noted will not increase, or decrease, as a result of the blow-down and salvage. If the area of extensive white fir blow-down near the McGuire Beach is considered for artificial regeneration, Jeffrey pine rather than white fir (susceptible to annosus root disease) or sugar pine (susceptible to blister rust) should be considered.

The planned prompt removal of wind-thrown timber and slash will also minimize impact from insects. Some pine engraver attack of small diameter (6 to 8 inches maximum) pines in the immediate vicinity of slash may occur and the tops of larger trees may be attacked during the hot, dry period of late summer. However, populations are not expected to increase drastically because of some host specificity exhibited by the insect and the mixed species composition of the stands. Any increase in bark beetle activity will also be limited by the mixed species composition, high site, and favorable soil moisture conditions now present. Fir engraver activity was apparently at moderate to high levels before the blow-down, and may actually decrease in areas where wind-thrown trees acted as thinning agents in overstocked aggregations and in areas where annosus-infected trees were wind-thrown and will be removed.

In addition to Forest/District concerns about pest impact resulting from the blow-down and salvage, District personnel (Harlan Hamburger, Resource Officer; Ed Moore, Recreation Technician; and Mat Trigs, Small Sales Officer) expressed concern about widespread group killing of white fir occurring over a period of years in the developed sites. They suspected annosus root disease and were considering a request for a

biological evaluation from FPM. The limited time available for this evaluation did not permit an intensive examination for annosus root disease or potential pest problems unrelated to salvage operations. However, annosus root disease was confirmed and opportunities to reduce potential dwarf mistletoe impact were observed. It is suggested that the request for an evaluation of the developed sites be made, through the Forest Silviculturist, if additional pest management input to the overall vegetation management program for the French Meadows Recreation Area is desired. This additional evaluation, if conducted in the spring of 1984, would also provide an opportunity for FPM follow-up on any insect damage or impact developing from the blow-down and salvage.

MAILING LIST #2 (DEVELOPED RECREATION SITE I&D's AND HAZARD TREES)

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1 M.D. Srago, TM, R-5
1 W.R. Beaufait, TM, R-5
1 FPM-Davis: Jack Barry
1 Univ. of Alberta, Canada
1 Simon Fraser Univ., Canada
1 U.C. Riverside: L.R. Brown
1 FPM Admin. Group,R-5(with copy of list)(file)
1 Ladd Livingston, Idaho Dept. Lands
10 WESTFORNET-PSW (with cover memo from WLF)
5 WESTFORNET- INT (with cover memo from WLF)
1 W.H. Sager, HDF&W
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1 Gary.Fiddler
1 Forestry Library, UC Berkeley
2 Forestry Dept., Humboldt State U.: Bill Bigg, John Stuart

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4 Coop. Extension Foresters: Tom Robson, Pete Passof, Paul Smith, Rick Standiford
14 Other-Region FPM Staff Directors: R-6, R-4, R-3, R-2, R-1, R-10 (Anchorage), NA (4), SA (4) [addresses in FS Org. Directory]
4 Other R-5 Staff people: Staff Directors: CFF, AP&D, OI, Recreation (w/copy of this list)
4 FES people (other than PSW): PNW, Corvallis: E.E. Nelson, G.E. Daterman; RM: F.G. Hawksworth, LaGrande, OR: B. E. Wickman
8 BLM: Sacramento, Bakersfield, Susanville, Redding, Ukiah, Folsom; John Bosworth, Susanville; Dan Marlatt, Susanville
1 Regional Director, NPS, San Francisco (Attn: Plant Ecologist)
10 National Park Superintendents: Lassen Volcanic, Redwood, Sequoia & Kings Canyon, Yosemite, Point Reyes National Seashore, Whiskeytown NRA, Pinnacles National Monument, Santa Monica Mountains NRA, Lava Beds NM, Golden Gate NRA

17 National Forest Supervisors: All (except Tahoe N.F.*)

78 R-5 National Forest Ranger Districts: All (except Truckee R.D., Tahoe N.F. *)

1 R-5 FPM people: B.T. Sturgess (w/copy of this list)
1 BIA: W.E. Finale, Sacramento, CA
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